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OUT 65699

R 122044Z AUG 68
FM NPIC WASHDC
TO RUEOJFA/DIA (DIAXX-2)
RUEOJFA/JCS (JRC)
RUEFHQA/HQ USAF FOR AFNICAD & AFRDRP
RUCSAAA/SAC (DIR)
RUWMDDA/9 SRW (DCI)
BT

SECRET [REDACTED] CITE NPIC 4347.

SUBJECT: EVALUATION OF GIANT SCALE MISSION S-039, FLOWN 23 JULY 1968.

1. QUALITY SUMMARY: THE TECHNICAL OBJECTIVE CAMERAS AND THE OPERATIONAL OBJECTIVE CAMERAS OPERATED SATISFACTORILY THROUGHOUT THE MISSION; HOWEVER, THE INTELLIGENCE VALUE OF THE MISSION IS GREATLY REDUCED BECAUSE OF THE TERRAIN IS OBSCURED BY CLOUDS AND GROUND HAZE. INTERPRETATION SUITABILITY IS GOOD IN CLOUD FREE AREA AND RANGES TO POOR IN OTHER AREA. THE FOLLOWING GROUND RESOLUTION FIGURES ARE EMPIRICAL ESTIMATES BASED ON EVALUATIONS OF SIMILAR SENSORS AND IMPLY A BAR AND A SPACE.

BE DETECTED. THESE ESTIMATES WERE MADE FROM THE ORIGINAL NEGATIVE ON CLOUD FREE IMAGERY AT OR NEAR NADIR, AND WHERE THE VEHICLE WAS AT AN ALTITUDE OVER 70,000 FEET.

- A. RIGHT TECHNICAL OBJECTIVE CAMERA
- B. LEFT OPERATIONAL OBJECTIVE CAMERA
- C. RIGHT OPERATIONAL OBJECTIVE CAMERA

NO ESTIMATE WAS GIVEN FOR THE LEFT TECHNICAL OBJECTIVE CAMERA BECAUSE THERE IS NO CLOUD FREE PHOTOGRAPHY ON VERTICAL ACQUISITIONS.

2. THE SYSTEM EMPLOYED THE USUAL SENSORS AND THE MATERIAL WAS PROCESSED [REDACTED] EXCEPT FOR THE TERRAIN OBJECTIVE CAMERA MATERIAL WHICH WAS PROCESSED BY 9RTS. THE TERRAIN OBJECTIVE CAMERA UTILIZED CAMOUFLAGE DETECTION FILM (SO-180) WHICH WAS NOT EVALUATED. THE ONLY MATERIALS EVALUATED WERE THE ORIGINAL NEGATIVES FROM THE OPERATIONAL AND TECHNICAL OBJECTIVE CAMERAS.

3. CLOUDS OBSCURE OR DEGRADE 75 PERCENT OF THE MISSION.

4. ANALYSIS OF THE TECHNICAL OBJECTIVE CAMERA MATERIAL:

- A. COMMENTS APPLICABLE TO BOTH CAMERAS.

(1) MINUS DENSITY STREAKS ASSOCIATED WITH THE PLATEN CONFIGURATION AND RANDOM MINUS DENSITY STREAKS PARALLEL TO THE MAJOR AXIS OF THE FILM ARE PRESENT THROUGHOUT THE MISSION.
(2) FOG CAUSED BY STATIC DISCHARGE CAN BE DETECTED INTERMITTENTLY ALONG BOTH EDGES OF THE FILM.

(3) BANDING, ASSOCIATED WITH UNEVEN SHUTTER MOVEMENT, IS PRESENT THROUGHOUT.

(4) THE DENSITY AND CONTRAST OF THE NEGATIVES ARE ADEQUATE WHERE ATMOSPHERICS ARE NOT A MAJOR FACTOR.

(5) APPROXIMATELY 65 PERCENT OF THE PHOTOGRAPHY WAS ACQUIRED ABOVE 30 DEGREES OBLIQUITY.

- B. LEFT TECHNICAL OBJECTIVE CAMERA (AL), S/N 64-03

(1) A MINUS DENSITY LINE 0.5 INCH FROM THE TITLED

MYSTERY 25X1		
BY	OFFICE	
1	FILE	
2	CABLE SEC.	
	PP&B/RD	
	SECUR.	
34	TSSG / TADK	
1	PSG/OC	
	RRD	
	REPRO	
	AID 25X1	
	IEG	
	PROF	
	SCI 25X1	
	WEST	
	EAST	
	M&S	
	PGM	
	IAS	
	DIA-XX1	
	SPAD	
	DIA 25X1	
	25X1	
	CMX	

ADVANCE CY
SANITIZED
WITH 1

SECRET

25X1

--2--

EDGE, IS PRESENT THROUGHOUT. ANOTHER MINUS DENSITY LINE, 1.75 INCHES FROM THE TITLED EDGE, IS CONTINUOUS FROM FRAME 415 TO THE END OF THE MISSION.

(2) THE BANDING, WHICH WAS PREVIOUSLY MENTIONED, IS MORE SEVERE WHEN THE SHUTTER DIRECTION IS TOWARD THE TAKE-UP END OF THE FILM. THE OVERALL IMAGE DEGRADATION APPEARS TO BE MINOR.

(3) CAMERA OFF/ONS OCCURRED BETWEEN FRAMES 251/252, 415/416, 515/516, AND 832/833.

(4) THE COUNTER HOLDS A BIAS OF 39 OVER THE TITLED FRAME NUMBER.

(5) THE LAST TITLED FRAME IS 1059.

C. RIGHT TECHNICAL OBJECTIVE CAMERA:

(1) ONE CASE OF OVERLAPPING FORMATS (0.5 INCH) IS PRESENT NEAR THE SECOND CAMERA OFF/ON.

(2) CAMERA OFF/ONS OCCURRED BETWEEN FRAMES 227/228, 394/395, 511/512, AND 827/828.

(3) THE COUNTER MAINTAINS A BIAS OF 41 OVER THE TITLED FRAME NUMBER.

(4) THE LAST TITLED FRAME IS 1054.

5. ANALYSIS OF THE OPERATIONAL OBJECTIVE CAMERA MATERIAL.

A. COMMENTS APPLICABLE TO BOTH CAMERAS:

(1) THE DENSITY AND CONTRAST ARE ADEQUATE WHERE ATMOSPHERICS ARE NOT A MAJOR FACTOR.

(2) THE TIMING DOTS IMAGED WITH EACH FRAME BEGIN WITH 0.55 INCH AFTER THE START OF SCAN AND EXTEND 0.35 INCH BEYOND THE END OF SCAN.

(3) APPROXIMATELY 0.1 INCH OF THE DATA BLOCKS ENTER THE FORMAT AREA; HOWEVER, THE DATA CHAMBERS ARE READABLE THROUGHOUT.

(4) RAIL SCRATCHES ARE PRESENT THROUGHOUT THE MISSION.

B. LEFT OPERATIONAL OBJECTIVE CAMERA (CL), S/N 40-33

(1) THE FIRST 0.5 INCH OF SCAN IS DEGRADED AND APPEARS OUT OF FOCUS.

(2) THE EVENTS COUNTER HOLDS A PLUS THREE BIAS WITH THE TITLED FRAME NUMBER.

(3) SPLICES ARE LOCATED BETWEEN FRAMES 114/115, 340/341, 680/681, AND 1360/1361.

(4) CAMERA OFF/ONS OCCUR BETWEEN FRAMES 313/314 AND 1142/1143.

(5) THE LAST TITLED FRAME IS 1537.

C. RIGHT OPERATIONAL OBJECTIVE CAMERA (CR), S/N 40-32

(1) THE FIRST 0.4 INCH OF SCAN IS DEGRADED AND APPEARS OUT OF FOCUS. THE FIRST 0.2 INCH IS MOST SEVERE.

(2) SPLICES OCCUR BETWEEN FRAMES 340/341, 680/681, 1020/1021 AND 1360/1361.

(3) THE TIME TRACK IS NOT IMAGED ON THE FIRST NINE FRAMES OF THE MISSION.

(4) CAMERA OFF/ONS OCCUR BETWEEN FRAMES 329/330 AND 1205/1206.

(5) THE LAST TITLED FRAME IS 1598.

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END OF MESSAGE

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